

REMARKS/ARGUMENTS

Applicant's Preliminary Amendment filed on November 3, 2008, which was filed concurrently with a Request for Continued Examination (RCE) in response to the final Office Action of May 2, 2008, was previously entered. Applicant thanks the Examiner for courtesies extended during the telephonic interviews that took place on November 19, 2008, and December 16, 2008. As the interviews took place after the RCE was filed, the Examiner suggested that further amendments to the claims should be included as a Supplemental Amendment to the Preliminary Amendment filed with the RCE. Therefore, this paper includes amendments suggested by the Examiner during the interviews, as explained in greater detail below.

Claims 1–23 are pending in the application. The Office Action rejected Claims 1–5 and 9–14 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,756,146 to Rouse (“Rouse”). The Office Action also rejected Claims 6–8 under 35 U.S.C. § 103(a) as being unpatentable over Rouse in view of U.S. Patent No. 5,048,278 to Jones et al. (“Jones ’278”). Furthermore, the Office Action objected to Claims 13 and 14 due to alleged informalities. In addition, Claims 15–23 were subject to a Restriction Requirement and withdrawn by the Examiner.

In view of the Amendments and Remarks set forth herein, Applicants respectfully submits that the application is in condition for allowance.

Restriction Requirement

The Examiner has required restriction between Group I, namely Claim 6, and Group II, namely Claims 15–23. The Office Action indicates that Claim 6 is constructively elected by original presentation for prosecution on the merits, and as a result Claims 15–23 were withdrawn by the Examiner as directed to a non-elected invention.

Applicant respectfully submits that the restriction requirement with regard to Claims 6 and 15–23 is improper and requests that the restriction presented be withdrawn. Each of these claims is drawn to embodiments of a cutting head for a brush cutter or edge trimmer including a passageway for a cutting string. In Claim 6, the passageway is configured for a cutting string

that has, *inter alia*, a polygonal cross-section. Independent Claim 15 recites, *inter alia*, a cutting head having a circular periphery and comprising at least one passageway for a cutting string.

The Examiner asserts that the restriction requirement is proper because Group I and Group II are related as subcombinations disclosed as usable together in a single combination. Office Action, pages 2–3. MPEP § 806.05(d), however, which is cited by the Examiner, applies only to situations where “applicant separately claims plural subcombinations usable together in a single combination and claims a combination that requires the particulars of at least one of said subcombinations.” In the case of the present application (prior to the amendments presented herein), Claims 15–23 recite a cutting head having similar characteristics to the cutting head of Claim 6, but also include more specific recitations regarding the periphery of the cutting head and the radius of curvature of the curved bearing zone with respect to the radius of the periphery. In other words, this is not a situation where two subcombinations and a combination are claimed, as asserted by the Examiner. Therefore, MPEP § 806.05(d) does not apply, and the restriction requirement is improper.

Notwithstanding the impropriety of the restriction requirement, Applicant hereby cancels Claims 15–23. By canceling Claims 15–23, Applicant in no way admits or agrees to any corresponding requirement for restriction; rather, the identified claims are being canceled for the purpose of expediting prosecution of this application. Furthermore, Applicant expressly reserves the right to file divisional applications or take such other appropriate measures deemed necessary to protect the inventions in the remaining claims.

Objection to the Drawings and Specification

The Examiner objected to the drawings under 37 CFR § 1.83(a) as not showing every feature of the invention specified in the claims. Specifically, the Examiner asserts that the motor set forth in Claim 13 must be shown in the figures. Applicant addressed this objection in the Response dated March 3, 2008, which was filed in response to the Office Action dated December 3, 2008. In the Response dated March 3, 2008, FIG. 4 was amended to include a representation of the motor. In the present Office Action, the Examiner further objects to the amended FIG. 4 as introducing new matter by showing the motor.

Although Applicant disagrees with these objections and does not believe the inclusion of the motor in FIG. 4 represents new matter, the representation of the motor has been removed from FIG. 4. Furthermore, in order to expedite examination of the present application, Claim 13, which recites a cutting device comprising a motor, is canceled. Therefore, the Objections to the Drawings and Specification have been addressed or are otherwise moot.

Objection to the Claims

As mentioned above, Claim 13 has been canceled; therefore, the objection to Claim 13 is moot. In addition, Claim 14 has been amended as described above to address the informalities noted in the Office Action.

Independent Claim 1

Independent Claim 1 relates to a cutting head comprising a passageway for a cutting string and at least one curved bearing zone extending between a string outlet region of the passageway and a peripheral region of the head. The surface of the curved bearing zone has a recessed profile. To clarify the structure of the passageway, as suggested by the Examiner during the telephonic interviews, and further patentably distinguish the invention, Claim 1 has been amended to recite that the passageway extends along an axis that is offset from an axis of rotation of the cutting head. The position of the passageway as offset from the axis of rotation of the cutting head allows for the curved bearing zone to provide a smooth transition from the passageway to the peripheral region in order to minimize fatigue of the string during operation. Support for this amendment can be found, for example, in Fig. 4 and on page 6 of the application at lines 25–28.

Furthermore, amended Claim 1 now recites that the surface of the curved bearing zone presents a recessed profile which is suited to the cross-section of the cutting string in order to retain the cutting string. This amendment serves to define more precisely the complementarity of the profile of the curved bearing zone and the cross-section of the string. Notably, according to the invention, the profile of the curved bearing zone is suited to the cross-section of the cutting string in order to better retain the string. This results in stabilizing the trajectory of the string,

which minimizes the fatigue of the string and increases the cutting efficiency. Support for this amendment can be found, for example, on page 12 of the application at lines 19–26. None of the cited references discloses this feature or its effects.

Claims 2–12 and 14 depend from independent Claim 1 and thus incorporate all of the elements of Claim 1.

New Claims 24–29

In addition to the amendments described above, Applicant has added new Claims 24–29 to the claims. Claims 24 and 25 were included in the Amendment filed on November 3, 2008, and were previously entered, but are discussed below for the Examiner's convenience. Independent Claim 24 is directed to a cutting head configured for a non-circular cutting string. In this case, the profile of the curved bearing zone is suited to the cross-section of the non-circular cutting string, further allowing for the retention of the string in its optimal cutting orientation. Claim 25 depends from new Claim 24. Support for the Claims 24 and 25 can be found on page 12 of the application at lines 19–26.

New independent Claim 26 recites a cutting head that includes a passageway that extends along an axis between an opening and a string outlet region, where the string outlet region is spaced farther inwardly from the peripheral region than is the opening. This is illustrated and supported by Fig. 4 of the application at reference numbers 113 and 115. New Claim 26 was included based on the Examiner's suggestion to include recitations further defining the structure of the passageway.

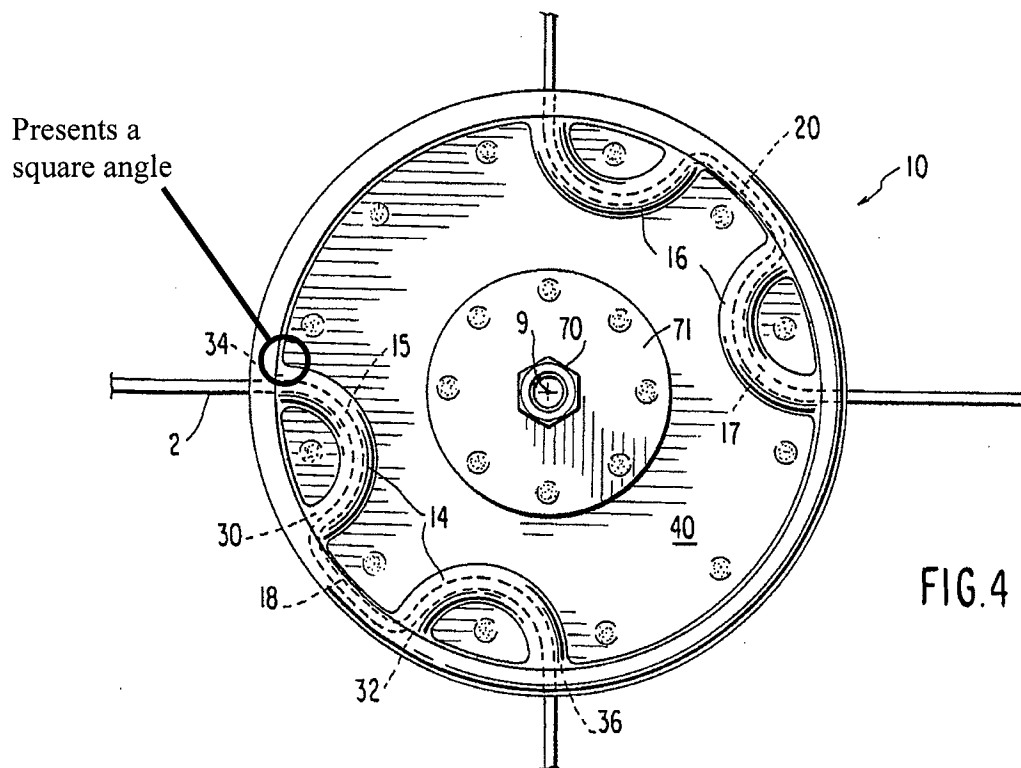
New Claim 27 depends from amended Claim 1 and recites that the axis of the passageway is inclined relative to a direction perpendicular to the peripheral region of the head. This feature ensures that the radius of curvature of the curved bearing zone is greater than if the passageway were configured such that a string could exit the passageway perpendicularly to the peripheral portion, thereby reducing the fatigue of the string. Support for this amendment can be found in Fig. 4 and on page 7 of the application at lines 1–19. New Claim 27 was included based on the Examiner's suggestion to include recitations further defining the structure of the passageway.

Finally, new independent Claim 28 recites that the passageway presents a recessed profile identical to the profile of the curved bearing zone. This feature ensures the continuity of the profile that retains the string in the passageway and on the curved bearing portion and is supported, for example, in Fig. 10, reference numbers 110a and 110b. New Claim 29 depends from new Claim 28 and further recites that the height of the curved bearing zone is equal to the height of the string passageway. Support for Claim 29 may be found, for example, in Figs. 1–4. New Claims 28 and 29 were included based on the Examiner’s suggestion to include recitations further defining the structure of the passageway.

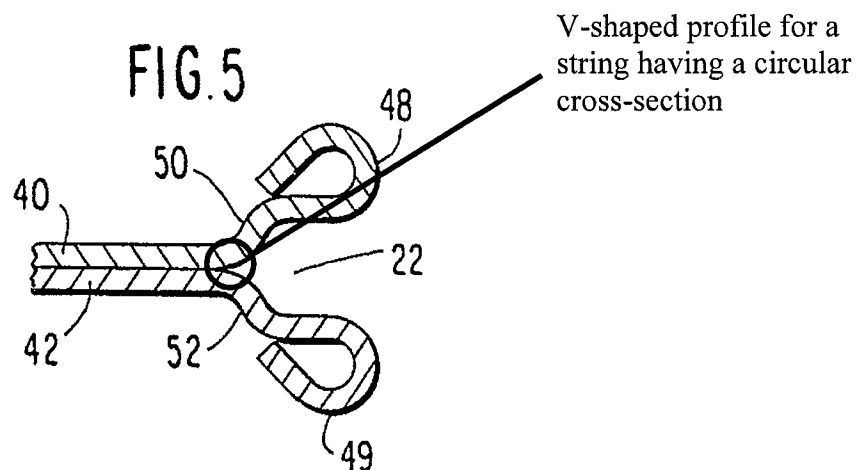
Rejection of Claims 1–5 and 9–14 under 35 U.S.C. § 102(b)

The Office Action rejected Claims 1–5 and 9–14 under 35 U.S.C. § 102(b) as being anticipated by Rouse. As mentioned above, Claim 13 is canceled, and so the rejection of Claim 13 is moot. Regarding Claims 1–5, 9–12, and 14, Applicant respectfully submits that the rejection of Claims 1–5, 9–12, and 14 is incorrect for the reasons given below.

As described above, independent Claim 1 is directed to a cutting head including “at least one curved bearing zone extending between a string outlet region of said passageway and a peripheral region of the head.” The Office Action asserts that Rouse discloses a curved bearing zone in Figure 4 of Rouse. The Rouse patent, however, illustrates and describes a string trimmer head having passages that open directly onto the periphery of the head. *See* Rouse, Figure 4; column 3, lines 65–68. The passage ends 30 and 34 of Rouse serve as the string outlet regions of the passages in that the string 2 exits the passage 14 from the passage ends. Thus, the zone in Figure 4 shows a square angle between the string outlet of the passageway and the peripheral region of the head (reproduced below for easy reference).



Moreover, in Rouse, the peripheral region of the head presents a V-shaped recessed profile, even though the string 2 has a rounded profile (as shown in Figure 5 of Rouse and reproduced below). Therefore, Rouse does not disclose a recessed profile that is suited to the cross section of the cutting string.



Furthermore, the passageways of Rouse are aligned with the central axis 9, as seen in Fig. 4 of Rouse, and are thus not offset from the axis.

Claim 1 is thus not anticipated by Rouse. Claims 2–12 and 14 depend from independent Claim 1. Therefore, for at least the reasons described above, the rejection of Claims 2–12 and 14 is respectfully traversed.

Rejection of Claims 6–8 under 35 U.S.C. § 103(a)

The Office Action also rejected Claims 6–8 under 35 U.S.C. § 103(a) as being unpatentable over Rouse in view of Jones. Applicant respectfully submits that the rejection of Claims 6–8 is incorrect for the reasons given below.

As already discussed above, Rouse does not disclose all the features of independent Claim 1. Claims 6–8 depend from independent Claim 1, and thus Claims 6–8 cannot be considered as unpatentable over Rouse in view of Jones.

Moreover, although Jones may disclose a string having a polygonal cross-section, Jones does not teach or suggest providing a recessed bearing profile which is suited to the cross-section of the cutting string for any part of the cutting head. Therefore, for at least the reasons described above, the rejection of Claims 6–8 is respectfully traversed.

New Claims 24–29 are patentable over the cited art

For many of the reasons discussed above with regard to Claim 1 and the claims that depend therefrom, Claims 24–29 are also patentable over Rouse and Jones. Claim 26 is further patentable over Rouse and Jones, taken separately or in combination, because neither reference teaches or suggests a string outlet region that is spaced farther inwardly from the peripheral region than is the opening. Rather, as shown in Fig. 4 of Rouse and in Fig. 1 of Jones, the outlets are all located along the peripheral portion of the head, with none of the outlets located inwardly from the periphery than other outlets.

CONCLUSION

In view of the remarks presented above, it is respectfully submitted that independent Claims 1, 24, 26, and 28 and all the claims depending therefrom (*i.e.*, Claims 2–12, 14, 25, 27, and 29) are in condition for allowance. It is respectfully requested that a Notice of Allowance be issued in due course. The Examiner is requested to contact Applicants' undersigned attorney to resolve any remaining issues in order to expedite examination of the present application.

The patentability of the independent claims has been argued as set forth above, and thus Applicant will not take this opportunity to argue the merits of the rejection with regard to specific dependent claims. However, Applicant does not concede that the dependent claims are not independently patentable and reserves the right to argue the patentability of dependent claims at a later date if necessary.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefor (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,



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